

**Management of obstructive
cholangiocarcinoma with metallic
stents, implanted in a Y-shaped
pattern, in one session**

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Most patients with unresectable, malignant, obstructive, cholangiocarcinoma are candidates for palliation. Biliary

drainage by endoscopic interventions (ERCP), with implantation of self-expandable metallic stents (SEMSs), plays a major role in improving liver function and managing or avoiding cholangitis [1].

We present two cases (a 78-year-old man and a 65-year-old woman) with advanced, unresectable, cholangiocarcinoma (Bismuth, Type IV). They were treated with, a "one-step" implantation of SEMSs (Wallstent stents – Uncovered Nitinol stents), by ERCP, in a Y-shaped pattern. The biliary decompression was successful and significant reduction in jaundice was achieved, in both cases. The *male patient* had bilateral hilar strictures in both the right and left hepatic duct, in the common hepatic duct and in the middle of the common bile duct (Fig. 1A). Endoscopic sphincterotomy and balloon dilatation (distal stenosis) were performed. Then we inserted an uncovered SEMS 8 cm (with window) in the left hepatic bile duct and a second uncovered SEMS 10 cm (intact gall-bladder) in the right hepatic bile duct and in the common bile duct, through the first SEMS (Fig. 1B). The total serum bilirubin level (TSBL) dropped from a mean of 27 mg/dL to 2.5 mg/dL, within the first 20 days. The *female patient* had an inoperable cholangiocarcinoma that involved the confluence and both (right and left) hepatic bile ducts (Fig. 1C). We inserted an uncovered SEMS 10 cm (with window) in the right hepatic bile duct and a second uncovered SEMS 10 cm in the left hepatic bile duct and in the common bile duct, through the first SEMS (Fig. 1D). The TSBL dropped (13.5 mg/dL to 1.5 mg/dL), within the first 5 days.

The use of unilateral or bilateral SEMSs, in patients with unresectable malignant obstructive cholangiocarcinoma, is debatable [1-5]. In some cases, the placement of unilateral

SEMSs is adequate, because only 30% of the liver needs to be drained in order to reduce jaundice [3]. Inversely, unilateral drainage alone may not completely relieve jaundice and may increase the risk of cholangitis. Most endoscopists prefer to place bilateral SEMSs when possible, in an attempt to maximize biliary drainage, avoiding cholangitis [1,4,5].

Endoscopic SEMSs, are the treatment of choice in patients with malignant biliary obstruction [1,2]. In the unresectable cholangiocarcinomas (Bismuth, Type III + IV), bilateral drainage, with uncovered SEMSs (to avoid occluding drainage from the contralateral biliary system), in one session, is the optimal palliative treatment [1,4,5].

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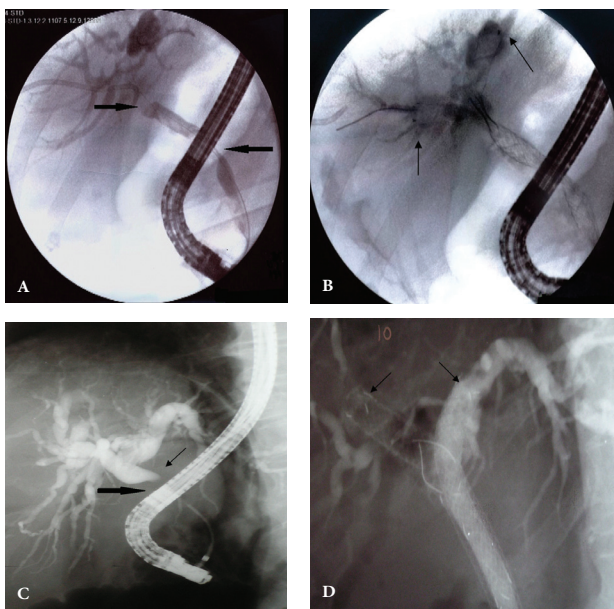


Figure 1 Unresectable obstructive cholangiocarcinomas (Bismuth Type IV). Malignant strictures (A,C, arrows). Two uncovered self-expandable metallic stents implanted in a Y-shaped pattern (B,D, arrows). Biliary drainage (B,D)